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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/616,832	Applicant(s) HIRAI, JUN	
	Examiner Minh Dinh	Art Unit 2132	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-45 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1,2,4-6,8-12,14-24,27 and 29-45 is/are rejected.

7)☒ Claim(s) 3,7,13,25-26 and 28 is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on 14 July 2000 is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☒ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-45 have been examined.

Priority

2. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Japan on 7/16/1999. It is noted, however, that applicant has not filed a certified copy of the P11-202927 application as required by 35 U.S.C. 119(b).

Drawings

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: "D/A converter 97" (page 64, line 19) not shown in fig. 13. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Objections

4. Claims 33 and 45 are objected to because of the following informalities:

a. Regarding claim 33, the intended use of the apparatus stated in the preamble, "for transmitting an information signal ... and transmitting second additional information ...", contradicts the limitations in the body of the claim. An apparatus does not transmit information to itself.

b. Regarding claim 45, the method of the claim, "an information signal receiving method", contradicts its purpose in the preamble, "for transmitting an information signal ...".

Appropriate correction is required.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claim 6 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 6 recites the limitation "superimposed" in lines 16 and 18. The relating information is only added, not superimposed, to the first and second information signals (see lines 9-13 of the claim). There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless – (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claims 1, 5, 9, 11-12, 21, 29-30, 42 and 44 are rejected under 35 U.S.C. 102(e) as being anticipated by Epstein (6,490,355).

a. Regarding claim 1, Epstein discloses a copyright protection method comprising the steps of:

adding on a transmitting side additional information for copyright protection to a first information signal and a second information signal (col. 8, lines 41-44, 53-56), the first information signal and the second information signal being mutually associated and independently usable (col. 7, lines 34-37; col. 10, lines 26-29), and outputting the first information signal and the second information signal, each with the additional information (col. 8, lines 57-61); and

controlling on a receiving side a copyright protection operation on at least one of the first information signal and the second information signal based on the additional information added to the first information signal and the additional information added to the second information signal (col. 9, line 31 – col. 10, line 19).

b. Regarding claims 5, 9, 21, 42 and 44, Epstein discloses an information signal processing system comprising:

An information signal output apparatus for outputting a first information signal and a second information signal, the information signals being mutually associated and independently usable (fig. 3, element 230; col. 10, lines 26-29);

An information signal processing apparatus for processing the first information signal and the second information signal output from the information signal output apparatus (fig. 3, element 240), wherein

said information signal output apparatus includes:

first additional-information generating means for generating first additional information for copyright protection to be added to the first information signal (fig. 3, element 221);

first additional-information addition means for adding the first additional information generated from the first additional-information generating means to the first information signal (fig. 3, element 252);

second additional-information generating means for generating second additional information for copyright protection to be added to the second information signal (fig. 3, element 231);

second additional-information addition means for adding the second additional information generated from the second additional-information generating means to the second information signal (fig. 3, element 254); and

information signal output means for outputting the first information signal having the first additional information and the second information signal having the second additional information (fig. 3, elements 256, 258), and wherein

said information signal processing apparatus includes:

first additional-information extraction means for extracting the first additional information from the first information signal output from the information signal output apparatus (fig. 3, element 262);

second additional-information extraction means for extracting the second additional information from the second information signal output from the information signal output apparatus (fig. 3, element 254); and

control means for controlling a copyright protection operation on at least one of the first information signal and the second information signal based on the first additional information and the second additional information extracted by the first and second additional-information extraction means (fig. 3, element 270), respectively.

c. Regarding claim 11, Epstein further discloses that the first and second additional information is copying control information (col. 8, lines 36-40).

d. Regarding claim 12, Epstein further discloses that the first additional-information addition means superimposes the first additional information on the first information signal as digital watermark information, and the second additional-information addition means superimposes the second additional information on the second information signal as digital watermark information (col. 8, lines 44-48, 52-56).

e. Regarding claim 29, Epstein further discloses that the first and second additional information are superimposed on and extracted from the first and second information signals, respectively, as digital watermark information (col. 8, lines 57-61; col. 9, lines 37-42), the control means perform the copyright protection operation on at least one of the first and second information signal, based on the detected additional information,

when only one of the first additional information and the second additional information is detected (col. 10, lines 20-29).

f. Regarding claim 30, Epstein discloses that the information signal processing apparatus comprises:

a copy protection status determination circuit (fig. 3, element 270) taking a video signal input, which meets the limitation of first signal detection means; and

the copy protection status determination circuit (fig. 3, element 270) taking an audio signal input, which also meets the limitation of second signal detection means; and

signal determining means for determining whether the first additional information and the second additional information are not detected based on the output from the copy protection status determination circuit (col. 4, lines 16-19).

9. Claims 8, 17, 19, 21, 24, 32-33, 35-38, 41, 43 and 45 are rejected under 35 U.S.C. 102(b) as being anticipated by Kori et al. (JP 11-176089). The examiner relies on the computer-generated translation version of the patent application. When a formal translation arrives at the office, it will be mailed to the applicant.

a. Regarding claim 8, Kori discloses an information signal processing system comprising:

an information signal output apparatus for outputting a first information signal and a second information signal, the information signals being mutually associated (par. 0051);

an information signal processing apparatus for processing the first information signal and the second information signal output from the information signal output apparatus (fig. 1, element 3),

said information signal output apparatus includes:

additional-information generating means for generating first additional information for copyright protection (par. 0051);

additional-information addition means for adding the first additional information generated from the additional-information generating means to the first and second information signals (par. 0051, 0052);

information signal output means for outputting the first information signal and the second information signal having the first additional information added by the additional-information addition means (par. 0051, 0052), and

additional-information output means for outputting second additional information for copyright protection concerning the first information signal and the second information signal (par. 0054), and where in the information signal processing apparatus includes:

information signal input means for receiving the first information signal and the second information signal output from the information signal output means of the information signal output apparatus (fig. 1, element 4);

additional-information input means for receiving the second additional information output from the additional-information output means of the information signal output apparatus (fig. 1, element 4);

additional-information extraction means for extracting first additional information added to the first information signal and the second information signal received by the information signal input means (fig. 1, elements 7, 8); and

control means for controlling a copyright protection operation on the first information signal and the second information signal based on the first additional information and the second additional information (fig. 1, element 9).

b. Regarding claim 17, Kori discloses an information signal output apparatus comprising:

additional-information generating means for generating first additional information for copyright protection (par. 0019);

additional-information addition means for adding the first additional information generated from the additional-information generating means to an information signal (par. 0019);

information signal output means for outputting the information signal having the first additional information added by the additional-information addition means (par. 0019), and

additional-information output means for outputting second additional information for copyright protection concerning the information signal (par. 0020).

c. Regarding claim 19, Kori further discloses that the additional-information addition means superimposes the first additional information generated from the additional-information generating means on the information signal as digital watermark information (par. 0019).

d. Regarding claim 21, Kori discloses an information signal processing apparatus for processing a first information signal and a second information signal, the information signals being mutually associated and independently usable, having first additional information and second additional information, respectively, for copyright protection (par. 0052), the information signal processing apparatus comprising:

first additional-information extraction means for extracting the first additional information from the first information signal output from the information signal output apparatus (fig. 1, element 7);

second additional-information extraction means for extracting the second additional information from the second information signal output from the information signal output apparatus (fig. 1, element 8); and

control means for controlling a copyright protection operation on at least one of the first information signal and the second information signal based on the first additional information and the second additional information extracted by the first and second additional-information extraction means (fig. 1, element 9), respectively.

e. Regarding claim 24, Kori discloses that the information signal processing apparatus further comprises:

a first CGMS-D decoder (fig. 2, element 13) detecting a video signal input and decoding the CGMS-D information inserted in the video signal (par. 0020, 0074), which meets the limitation of first signal detection means; and

a second CGMS-D decoder (fig. 2, element 14) detecting an audio signal input decoding the CGMS-D information inserted in the audio signal (par. 0020, 0074), which meets the limitation of second signal detection means,

wherein the control means performs the copying control operation on at least one of the first information signal and the second information signal based on an output from the first decoder, an output the second decoder, an output from the first additional-information extraction means, and an output from the second additional-information extraction means (fig. 2, element 15; par. 0075).

f. Regarding claim 32, Kori discloses does that the information signal processing apparatus further comprises reading means for reading the first information signal having the first additional information and the second information signal having the second additional information from a recording medium (fig. 2, items 1, 2), wherein the control means performs the copyright protection operation on the first and second information signals based on information indicating a type of recording medium on which the first and second information signals are recorded (par. 0062).

g. Regarding claim 33, Kori discloses an information processing apparatus comprising:

information signal input means for receiving an information signal (par. 0021);

additional-information input means for receiving second additional information (par. 0021);

additional-information extraction means for extracting first additional information from the information signal received by the information signal input means (par. 0025); and

control means for performing a copyright protection operation on the information signal based on the first additional information and the second additional information (par. 0027).

h. Regarding claim 35, Kori further discloses that the first additional information is superimposed on the information signal as digital watermark information (par. 0019), and the additional-information extraction means extract the first additional information superimposed on the information signal as the digital watermark information (par. 0025).

i. Regarding claim 36, Kori further discloses that the first additional information and the second additional information comprise copying control information, and the control means for performs a copyright control operation on the information signal based on the first additional information and the second additional information (par. 0025).

j. Regarding claim 37, Kori discloses an information recording medium on which a first information signal and a second information signal are recorded, the first and second information signals being mutually associated, wherein first additional information is added to the first information signal, second additional information is added to the second information signal, and relating information for relating the first information signal to the second information signal is added to the first information signal and the second information signal (fig. 1, par. 0066-0067).

k. Regarding claim 38, Kori further discloses that the first additional information added to the first information signal and the second additional information added to the second information signal are used for copying control operation (par. 0066).

l. Regarding claim 41, Kori further discloses that the first additional information and the second additional information added to the first information signal and the second information signal, respectively, comprise digital watermark information formed by using a watermark technique, and the first information signal and the second information signal are having the digital watermark information superimposed are recorded (par. 0066).

m. Regarding claim 43, Kori discloses an information signal output method comprising:

an additional-information generating step of generating first additional information for copyright protection (par. 0019);

an additional-information addition step of adding the first additional information generated in the additional-information generating step to an information signal (par. 0019); and

an output step of outputting the information signal having the first additional information added in the additional-information addition step and outputting second additional information for copyright protection concerning the information signal (par. 0019-0020).

n. Regarding claim 45, Kori discloses an information signal receiving method comprising:

an information signal receiving step of receiving an information signal (par. 0021);

a second-additional-information receiving step of receiving second additional information (par. 0021);

an extraction step of extracting first additional information added to the information signal received in the information signal receiving step (par. 0025);

a controlling step of controlling a copyright protection operation on the information signal based on the first additional information and the second additional information (par. 0027).

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

11. 2, 6, 10, 15-16 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Epstein as applied to claims 1, 5, 9 and 21 above, and further in view of Kori et al. (JP11-176089).

a. Regarding claim 2, Epstein does not disclose the steps of: inserting on the transmitting side relating information to the additional information added to the first information signal and to the additional information added to the second information signal, the relating information for relating the additional information added to the first

information signal to the additional information added to the second information signal; and determining on the receiving whether the first information signal is related to the second information signal by checking the relating information added to the first information signal against the relating information added to the second information signal. Kori discloses the steps of: inserting on the transmitting side relating information to the additional information added to the first information signal and to the additional information added to the second information signal (par. 0066); and determining on the receiving whether the first information signal is related to the second information signal by checking the relating information added to the first information signal against the relating information added to the second information signal (par. 0067). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Epstein method to include the steps of inserting on the transmitting side relating information to the additional information added to the first information signal and to the additional information added to the second information signal; and determining on the receiving whether the first information signal is related to the second information signal by checking the relating information added to the first information signal against the relating information added to the second information signal, as taught by Kori. The motivation for doing so would have been to verify that the first information signal is associated with the second information signal.

b. Regarding claims 6, 10 and 22, Epstein does not disclose that the information signal output apparatus further comprises relating-information means for generating

relating information for relating the first additional information to the second additional information, and

Wherein, in the information signal output apparatus, the first additional-information addition means adds the relating information to the first information signal, and the second additional-information generating means adds the relating information to the second information signal; and wherein, in the information signal processing apparatus, the first additional-information extraction means extracts the relating information added to the first information signal from the first information signal; the second additional-information extraction means extracts the relating information added to the second information signal from the second information signal; and the control means determines whether the first information signal and the second information signal are related to each other by checking the relating information extracted by the first additional-information extraction means against one extracted by the second additional-information extraction means.

Kori discloses that the information signal output apparatus further comprises relating-information means for generating relating information for relating the first additional information to the second additional information, and

Wherein, in the information signal output apparatus, the first additional-information addition means adds the relating information to the first information signal, and the second additional-information generating means adds the relating information to the second information signal (par. 0066); and wherein, in the information signal processing apparatus, the first additional-information extraction means extracts the

relating information added to the first information signal from the first information signal; the second additional-information extraction means extracts the relating information added to the second information signal from the second information signal; and the control means determines whether the first information signal and the second information signal are related to each other by checking the relating information extracted by the first additional-information extraction means against one extracted by the second additional-information extraction means (fig.1 and par. 0067). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Epstein system such that the information signal output apparatus generates and adds some relating information to both the first and second information signals, and the information signal processing apparatus determines whether the first and second information signals are related by checking the relating information extracted from the first information signal against one extracted from the second information signal, as taught by Kori. The motivation for doing so would have been to verify that the first information signal is associated with the second information signal.

c. Regarding claim 15, Epstein does not disclose that the information signal output means records the first and second information signals on a recording medium. Kori discloses that an information signal output means records the first and second information signals on a recording medium (par. 0019, 0052). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Epstein apparatus such that the information signal output means records the first and second information signals on a recording medium, as taught by Kori. The

motivation for doing so would have been to distribute digital works using recording media.

d. Regarding claim 16, Epstein does not discloses reading means for reading the first information signal having the first additional information superimposed and the second information signal having the second additional information superimposed from a recording medium. Kori discloses reading means for reading the first information signal having the first additional information superimposed and the second information signal having the second additional information superimposed from a recording medium (fig. 2, element 2). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Epstein apparatus to further comprise reading means for reading the first information signal having the first additional information superimposed and the second information signal having the second additional information superimposed from a recording medium, as taught by Kori. The motivation for doing so would have been to use a recording medium as an input source.

12. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kuroda et al. (6,633,723). Kuroda discloses a copyright protection method comprising the steps of:

transmitting an information signal having first additional information by using a first channel (col. 14, lines 50-56) and transmitting second additional information concerning the copyright protection operation on the information signal, which meets the

limitation of concerning the information signal, by using a second channel (col. 14, lines 56-61); and

controlling on a receiving side a copyright protection operation on the information signal based on the first additional information and on the second additional information (col. 14, line 67 – col. 15, line 5).

13. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Epstein as applied to claim 9 above, and further in view of Bloom et al. (6,332,194). Epstein does not disclose that the copyright protection for the whole content is distinguishable from the copyright protection indicates by either the first or second additional information. Bloom discloses that copyright protection for digital content is distinguishable from the copyright protection indicates by either the first or second additional information (col. 1, lines 41-48). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Epstein apparatus such that the copyright protection for the whole content is distinguishable from the copyright protection indicates by either the first or second additional information, as taught by Bloom. The motivation for doing so would have been that the second additional information would be easy to remove.

14. Claims 18 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kori as applied to claims 17 and 33 above, and further in view of Ryan (5,315,448).

a. Regarding claim 18, Kori does not disclose the information signal output means comprises an analog interface, and the additional-information output means comprises a digital interface. Ryan discloses an information signal output apparatus comprising an analog interface and a digital interface for output signals together with copy protection information (fig. 12, elements 24, 42). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Kori apparatus such that the information signal processing apparatus comprising an analog interface and a digital interface for input signals together with copy protection information, as taught by Ryan. The motivation for doing so would have been to provide copy protection in both the digital and analog domains (col. 3, lines 5-7).

b. Regarding claim 34, Kori does not disclose the information signal input means comprises an analog interface, and the additional-information input means comprises a digital interface. Ryan discloses an information signal processing apparatus comprising an analog interface and a digital interface for input signals together with copy protection information (fig. 12, elements 12, 14). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Kori apparatus such that the information signal processing apparatus comprising an analog interface and a digital interface for input signals together with copy protection information, as taught by Ryan. The motivation for doing so would have been to provide copy protection in both the digital and analog domains (col. 3, lines 5-7).

a. Regarding claim 18, Kori does not disclose the information signal output means comprises an analog interface, and the additional-information output means comprises a digital interface. Ryan discloses an information signal output apparatus comprising an analog interface and a digital interface for input signals together with copy protection information (fig. 12, elements 24, 42). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Kori apparatus such that the information signal processing apparatus comprising an analog interface and a digital interface for input signals together with copy protection information, as taught by Ryan. The motivation for doing so would have been to provide copy protection in both the digital and analog domains (col. 3, lines 5-7).

b. Regarding claim 34, Kori does not disclose the information signal input means comprises an analog interface, and the additional-information input means comprises a digital interface. Ryan discloses an information signal processing apparatus comprising an analog interface and a digital interface for input signals together with copy protection information (fig. 12, elements 12, 14). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Kori apparatus such that the information signal processing apparatus comprising an analog interface and a digital interface for input signals together with copy protection information, as taught by Ryan. The motivation for doing so would have been to provide copy protection in both the digital and analog domains (col. 3, lines 5-7).

15. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kori as applied to claim 17 above, and further in view of Epstein. Kori does not disclose the information signal output apparatus further comprising reading means for reading the information signal having the first additional information added thereto from a recording medium. Epstein discloses an information signal output apparatus comprising reading means for reading an information signal and first additional information from a recording medium (col. 10, lines 55-58). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Kori apparatus such that the information signal output apparatus comprising reading means for reading an information signal and first additional information from a recording medium, as taught by Epstein. The motivation for doing so would have been for the information signal output apparatus to use a recording medium as an input source.

16. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kori as applied to claim 21 above, and further in view of Rhoads et al. (6,442,285). Kori discloses that the first and second information signals contain copying control information as the first and second additional information, respectively. However, Kori does not disclose that the control means performs a copying control operation on the first and second information signals based on the copying control information of one of the first and second additional information which provides a greater restriction on the copying operation than the copying control operation of the other additional information. Rhoads discloses that a control means performs a copying control operation on a

content based on the copying control information of one of the first and second additional information which provides a greater restriction on the copying operation than the copying control operation of the other additional information (col. 14, lines 7-27). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Kori apparatus such that the control means performs a copying control operation on the whole content based on the copying control information of one of the first and second additional information which provides a greater restriction on the copying operation than the copying control operation of the other additional information, as taught by Kori. The motivation for doing so would have been that one of the watermark would be native to corruption, and thus be more easily detected.

17. Claim 27 rejected under 35 U.S.C. 103(a) as being unpatentable over Kori in view of Rhoads as applied to claim 23 above, and further in view of Bloom. Kori further discloses that the first additional-information extraction means extracts the first additional information as digital watermark information, discloses that the second additional-information extraction means extracts the second additional information as digital watermark information (fig. 2, elements 7-8). However, Kori does not disclose that the control means performs the copying control operation in such a manner that the content is allowed to be copy once when the first watermark information indicates that copying is not allowed, and when the second watermark information, in combination with the first watermark, indicates that copying is allowed once. Bloom discloses that a control means performs the copying control operation in such a manner that the content

is allowed to be copy once when the first watermark information indicates that copying is not allowed, and when the second watermark information, in combination with the first watermark, indicates that copying is allowed once (col. 1, lines 41-48). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the apparatus of Kori and Rhoads such that the control means performs the copying control operation in such a manner that the content is allowed to be copy once when the first watermark information indicates that copying is not allowed, and when the second watermark information, in combination with the first watermark, indicates that copying is allowed once, as taught by Bloom. The motivation for doing so would have been that the second watermark would be easy to remove.

18. Claim 31 is rejected under 35 U.S.C. 103(a) as being unpatentable over Epstein as applied to claim 21 above, and further in view of Ferrill et al. (A Survey of Digital Watermarking). Epstein further discloses that the first and second additional information are superimposed on and extracted from the first and second information signals, respectively, as digital watermark information (col. 8, lines 57-61; col. 9, lines 37-42), and the control means perform the copyright protection operation by determining that neither the first additional information nor the second additional information is detected from the first and second information signals when both are not detected (col. 4, lines 16-19). Epstein does not disclose that when either the first or second additional information is not unstably detected, it is determined as not detected. Ferrill discloses that a robustness attack makes a watermark unstable and no longer

useful (page 7, third par.). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Epstein apparatus such that when either the first or second additional information is unstably detected, it is treated as no longer useful, as taught by Ferrill, and accordingly, determined as not detected. The motivation for doing so would have been to treat the content associated with the attacked watermark as if it has been tampered with.

19. Claims 39-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kori as applied to claim 37 above, and further in view of Bloom.

a. Regarding claim 39, Kori does not disclose that the first additional information indicating that copying is not allowed for further generations and the second additional information indicating that copying is allowed for one generation when the whole content is allowed to be copied for one generation. Bloom discloses that first additional information indicating that copying is not allowed for further generations and second additional information, in conjunction with the first additional information, indicating that copying is allowed for one generation when the content is allowed to be copied for one generation (col. 1, lines 41-48). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Kori recording medium such that the first additional information indicating that copying is not allowed for further generations and the second additional information, in conjunction with the first additional information, indicating that copying is allowed for one generation when the content is

allowed to be copied for one generation, as taught by Bloom. The motivation for doing so would have been that the second additional information would be easy to remove.

b. Regarding claim 40, Kori does not disclose that the copyright protection for the whole content is distinguishable from the copyright protection indicates by either the first or second additional information. Bloom discloses that copyright protection for content is distinguishable from the copyright protection indicates by either the first or second additional information (col. 1, lines 41-48). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Kori recording medium such that the copyright protection for the whole content is distinguishable from the copyright protection indicates by either the first or second additional information, as taught by Bloom. The motivation for doing so would have been that the second additional information would be easy to remove.

Allowable Subject Matter

20. Claims 3, 7, 13, 25-26, and 28 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

21. The following is a statement of reasons for the indication of allowable subject matter.

a. Regarding claims 3, 7, 25-26 and 28, the limitation "overwriting only the digital watermark superimposed on the second information signal when the digital watermark

superimposed on the first information signal and the digital watermark superimposed on the second information signal are to be updated" in combination with elements of the parent claims have not been taught by prior art.

b. Regarding claim 13, the limitation "a video signal and an audio signal are allowed to be copied for one generation, a first watermark indicating that copying is not allowed for further generations is superimposed on the video signal, a second watermark indicating that copying is allowed for one generation is superimposed on the audio signal" in combination with elements of the parent claims have not been taught by prior art.

Conclusion

22. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Swanson et al. (Multimedia Data-Embedding and Watermarking Technologies).

Miller et al. (Watermarking in the Real World: An Application to DVD)

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Minh Dinh whose telephone number is 703-306-5617. The examiner can normally be reached on Mon - Fri: 9:00 am - 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gilberto Barron can be reached on 703-305-1830. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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MD

Minh Dinh
Examiner
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04/01/2004

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